

## CLAIMS

1. A method for accessing a first MMS multimedia message, the first message being sent to a receiving application using a sending application, which may include a network VAS application, the method comprising the steps of:

5 defining a second MMS multimedia message which contains a manipulation instruction for manipulating the first message; and  
enabling manipulative access to the first message, wherein the second message is at least one of created, sent, received, forwarded and processed in instruction.

10 2. A method for accessing a first message as claimed in claim 1, the message further comprising the step of sending both the first message and the second message via at least one of: radio, using mobile radio systems; inter-operator IP backbone; Internet e-mail; and over the Internet.

15 3. A method for accessing a first message as claimed in claim 1, the method further comprising the step of sending both the first message and the second message to the receiving application via at least one sender-end network element associated with a first service provider and at least one recipient-end network element associated with a second service provider.

20 4. A method for accessing a first message as claimed in claim 3, wherein the at least one sender-end network element and the at least one recipient-end network element belong to an area of competence of a single service provider.

25 5. A method for accessing a first message as claimed in claim 1, wherein the sending application and the receiving application are identical.

30 6. A method for accessing a first message as claimed in claim 1, wherein the manipulative access to the first message is effected on at least one of a sender-end network element, a recipient-end network element and the receiving application.

7. A method for accessing a first message as claimed in claim 1, wherein the manipulation instruction effects at least one of recall and deletion of the first message.

8. A method for accessing a first message as claimed in claim 4, wherein the manipulation instruction effects replacing the first message with the second message.

9. A method for accessing a first message as claimed in claim 8, wherein, if a  
5 Replace instruction is not supported by at least one of the service providers' MMS  
environments, the second message is delivered to the receiving application as a normal  
message, and the sender is informed of the delivery.

10. A method for accessing a first message as claimed in claim 8, wherein, given a  
10 Replace instruction, the second message is downloaded in one of a PUSH mode and a PULL  
mode.

11. A method for accessing a first message as claimed in claim 1, the method  
further comprising the step of sending the second message to a recipient of the first message,  
15 with the first message being identified via an identification number which clearly identifies  
the first message between the sending application and a sender-end network element.

12. A method for accessing a first message as claimed in claim 1, the method  
further comprising the step of providing a sender-end network element, via the sending  
20 application, when a message is sent, with at least one of: a flag indicating that the second  
message is a manipulation instruction; an identification number of the first message needing  
to be manipulated; and information that the sender is requesting feedback about an outcome  
of the initiated manipulation.

13. A method for accessing a first message as claimed in claim 1, the method  
further comprising the step of providing the sending application, via a sender-end network  
element, information regarding at least one of whether the network element supports  
manipulation of the first message, and whether the manipulation instruction has been  
25 accepted by a service provider associated with the sending application.

14. A method for accessing a first message as claimed in claim 1, the method  
further comprising the step of providing a recipient-end network element, via a sender-end  
network element, if the sending application and the receiving application belong to different  
MMS environments, with at least one of: a flag indicating that the second message is a  
30

manipulation instruction; an identification number of the first message needing to be manipulated; and information that the sender is requesting feedback about an outcome of the initiated manipulation.

5           15.     A method for accessing a first message as claimed in claim 1, the method further comprising the step of executing, via network elements associated with different service providers, one-to-one, reversible conversion of identification numbers relating to at least one of the first message and the second message, and managing corresponding information.

10           16.     A method for accessing a first message as claimed in claim 1, wherein, upon a manipulation instruction including a deletion command, when the receiving application has not yet been notified about the first message, the first message is deleted in one of an MMS environment of a sender-end service provider and in an area of competence of a recipient-end service provider, with the receiving application not be informed about the manipulation.

15           17.     A method for accessing a first message as claimed in claim 1, wherein, upon a manipulation instruction when notification has been given at a reception end but the first message has not yet been downloaded, the first message is manipulated in an MMS environment of a reception-end service provider, with the receiving application being informed about the manipulation and a time of the manipulation.

20           18.     A method for accessing a first message as claimed in claim 1, wherein, upon a manipulation instruction when notification has been given at a reception end but the first message has not yet been downloaded, the first message is manipulated in an MMS environment of a sender-end service provider, with the receiving application not be informed about the manipulation.

25           19.     A method for accessing a first message as claimed in claim 1, the method further comprising the step of providing the receiving application in a notification, via a recipient-end network element, at least one of: information that the first message, which has been announced but not yet delivered, is no longer available for download and possibly has been replaced with the second message, at least one of the first message and the second message being identified using a URI; information that a sender which manipulate the first

message which has already been delivered, the first message being identified on the receiving application using a message reference which is a URI whose memory location stores a standard text message from a recipient-end service provider, the URI including one of an identification number of the first message and a second identification number stipulated by a recipient-end network element; notification relating to manipulation of the first message by a service provider; notification relating to execution of a manipulation and, if requested by a recipient, relating to an unavailability of a manipulated message; a flag indicating that the second message contains a manipulation instruction needing to be carried out on the receiving application; information regarding which message already delivered needs to be manipulated; information regarding when a manipulation was carried out; information that a delivered second message is a subsequently replaced message; and information regarding a type of manipulation to be carried out.

20. A method for accessing a first message as claimed in claim 1, the method further comprising the step of providing a recipient-end network element, via the receiving application, upon the receiving application having been notified of the second message, with at least one of: information regarding whether the receiving application has understood that the first message, previously announced, has been successfully manipulated; information regarding whether the first message already downloaded was able to be manipulated successfully; information regarding at least one of whether a recipient has been informed about the already downloaded message having been manipulated, and whether the recipient has agreed to the already downloaded message having been manipulated; a reason for unsuccessful execution in the event of failure; information regarding whether, upon a Replace instruction, the already downloaded first message has been one of replaced automatically and replaced after prompting by the recipient; and information regarding a type of manipulation to be carried out.

21. A method for accessing a first message as claimed in claim 1, the method further comprising the step of providing a sender-end network element, via a recipient-end network element, if the sending application and the receiving application belong to different MMS environments of service providers, with at least one of: information regarding whether the manipulation instruction was able to be executed successfully; a reason for unsuccessful execution in the event of failure; information regarding when the manipulation instruction was executed; information regarding whether the manipulation instruction has been executed

automatically; information regarding at least one of whether a recipient has been informed about the manipulation, whether the recipient has agreed to the manipulation, and whether the manipulation has been prompted by the recipient; information that the first message one of has been downloaded and manipulated, and has not yet been downloaded before a replacement; an interim identification number of the message which has been manipulated; and information regarding a type of manipulation executed.

22. A method for accessing a first message as claimed in claim 1, the method further comprising the step of providing the sending application, via a sender-end network element, with at least one of: information regarding whether the manipulation instruction has been executed successfully; a reason for unsuccessful execution in the event of failure; information that manipulation was not able to be executed due to the first message being forwarded to an unknown address; information regarding when the manipulation instruction was executed; information regarding whether the manipulation instruction has been executed automatically; information regarding whether the recipient at least one of has been informed about the manipulation, has agreed to the manipulation, and has initiated the manipulation; information that the first message already downloaded at least one of has been manipulated and has not yet been delivered before a replacement; and an identification number of the first message which has been manipulated.

23. A method for accessing a first message as claimed in claim 1, wherein the second message includes at least one information element which has been assigned by the sending application and contains at least one condition for executing the manipulative access.

24. A method for accessing a first message as claimed in claim 23, wherein the at least one information element indicates the manipulative access based on an editing status of the first message.

25. A method for accessing a first message as claimed in claim 23, the method further comprising the step of stipulating, by the sending application and using the at least one information element, at least one of: manipulation of the first message only if the first message is still on the server and a recipient has not yet been notified about the first message; manipulation of the first message even if notification has been sent, but the first message has not yet been downloaded; manipulation of the first message if the recipient has not yet

opened the first message; and manipulation of the first message irrespective of a degree of editing.

26. A method for accessing a first message as claimed in claim 23, wherein the  
5 information element is assigned a default value representing a manipulation based on a default value if there is no condition stated in more precise terms.

27. A method for accessing a first message as claimed in claim 23, wherein at  
10 least one service provider involved in sending the first message and the second message limits the manipulation instruction to one of the service provider's own domains and certain domains of other service providers using one of an identification for a recipient and an additional flag.

28. A method for accessing a first message as claimed in claim 23, the method  
15 further comprising the step of assigning to the second message, containing the manipulation instruction, sent to a sender-end network element by the sending application, at least one of the following conditions for manipulating the first message: manipulation only before the recipient is notified; manipulation only before download, and after a notification has been sent; manipulation only if the first message has not yet been opened; and manipulation  
20 irrespective of an editing status of the first message.

29. A method for accessing a first message as claimed in claim 23, the method  
further comprising the step of notifying the sending application, via a sender-end network element, upon a confirmation after sending one of the first message and the second message,  
25 of whether the network element supports conditional manipulation and whether the conditional manipulation instruction has been accepted by the sender-end service provider.

30. A method for accessing a first message as claimed in claim 23, the method  
30 further comprising the step of transmitting to a recipient-end network element, via a sender-end network element, if the sending application and the receiving application belong to different MMS environments of service providers, at least one of the following conditions regarding manipulation of the first message by the second message: manipulation only before the recipient is notified; manipulation only before download, and after a notification has been

sent; manipulation only if the first message has not yet been opened; and manipulation irrespective of an editing status of the first message.

31. A method for accessing a first message as claimed in claim 23, the method further comprising the step of transmitting to the receiving application, via a recipient-end network element, at least one of the following conditions regarding manipulation of the first message by the second message, upon notification about the second message having arrived: manipulation only before the recipient is notified; manipulation only before download, and after a notification has been sent; manipulation only if the first message has not yet been opened; and manipulation irrespective of an editing status of the first message.

32. A method for accessing a first message as claimed in claim 23, wherein the first message and the second message are sent, received and manipulated using WAP messages.

33. A method for accessing a first message as claimed in claim 23, wherein the manipulation instructions are implemented by at least one of modifying existing header fields and adding additional header fields in WAP messages based on a WAP-MMSEncapsulation Standard, the WAP messages including at least one of *M-send.req*, *M-Send.conf*, *M-Notification.ind*, *M-NotifyResp.req*, *M-Retrieve.conf*, *M-Acknowledge.ind*, and *M-Delivery.ind*.

34. A method for accessing a first message as claimed in claim 33, the method further comprising the step of identifying the first message for feedback about a result of the manipulation instruction using one of an identification number of the second message and transaction identification numbers of corresponding WAP messages, and an additional header field with field values for the new header field containing an identification number of the first message.

35. A telecommunication device for accessing a first MMS multimedia message, the first multimedia message being sent to a receiving application using the sending application, which may include a network VAS application, the telecommunication device comprising:

means for at least one of creating, sending, receiving and processing the first message; and

means for at least one of creating, sending, receiving and processing a second MMS multimedia message, the second message including a manipulation instruction for  
5 manipulating the previously sent first message.

36. A telecommunication device as claimed in claim 35, further comprising a transmission unit which is connectable to the sending application.

10 37. A telecommunication device as claimed in claim 35, further comprising a reception unit which is connectable to the receiving application.

38. A telecommunication device as claimed in claim 35, further comprising a processor unit for evaluating notifications from a sender-end network element regarding at  
15 least one of support of the manipulation instruction, successful execution of the manipulation instruction, and reasons for unsuccessful execution of the manipulation instruction.

39. A telecommunication device as claimed in claim 35, further comprising a processor unit for evaluating notifications from a recipient-end network element about  
20 information regarding execution of the manipulation instruction.

40. A telecommunication device as claimed in claim 39, wherein the transmission unit sends notifications to a recipient-end network element regarding at least one of  
25 successful execution of the manipulation instruction and reasons for unsuccessful execution of the manipulation instruction.

41. A telecommunication device as claimed in claim 35, wherein the telecommunication device is a mobile telephone having a transmission unit and a reception unit.

30 42. A telecommunication device as claimed in claim 35, wherein the telecommunication device is a network element holding a VAS application.



43. A telecommunication device as claimed in claim 35, wherein the telecommunication device processes WAP messages based on a WAP-MMSEncapsulation Standard, the WAP messages including at least one of *M-Send.req*, *M-Send.conf*, *M-Notification.ind*, *M-NotifyResp.req*, *M-Retrieve.conf*, *M-Acknowledge.ind*, and *M-Delivery.ind*, wherein the manipulation instructions are implemented by at least one of modifying existing header fields and adding additional header fields.

44. A telecommunication device as claimed in claim 35, further comprising:  
means for producing an information element; and  
means for assigning the information element to the second message by the sending application, the information element containing at least one condition for executing the manipulative access.

45. A telecommunication device as claimed in claim 44, further comprising means for executing the manipulative instruction.

46. A network element in a radio communication system for network execution of a method for accessing a first MMS multimedia message, the first message being sent to a receiving application using a sending application, which may include a network VAS application, the network element comprising:

means for receiving and forwarding the first message sent by a telecommunication device; and

means for at least one of receiving, processing and forwarding a second MMS multimedia message containing a manipulation instruction relating to the first message to enable manipulative access to the first message.

47. A network element as claimed in claim 46, further comprising means for at least one of receiving and forwarding, and producing and sending, notifications to at least one of another network element, the sending application and the receiving application, the notifications relating to at least one of a sender's stipulated conditions for executing the manipulation instruction specified in the second message, successful execution of the manipulation instruction, and reasons for unsuccessful execution of the manipulation instruction.

48. A network element as claimed in claim 46, further comprising means for executing the manipulation instruction.

49. A network element as claimed in claim 48, wherein the first message can be manipulated on at least one of a network element and a receiving application in a reception unit.

50. A network element as claimed in claim 46, wherein the means for receiving, processing and forwarding the second message uses WAP messages based on a WAP-MMS Encapsulation Standard, the WAP messages including at least one of *M-Send.req*, *M-Send.conf*, *M-Notification.ind*, *M-NotifyResp.req*, *M-Retrieve.conf*, *M-Acknowledge.ind*, and *M-Delivery.ind*, wherein the manipulation instructions are implemented by at least one of modifying existing header fields and adding additional header fields.

51. A software program capable of running on a telecommunication device having a processor, wherein execution of the software program effects a method for accessing a first MMS multimedia message, the first message being sent to a receiving application using a sending application, which may include a network VAS application, the method comprising the steps of:

defining a second MMS multimedia message which contains a manipulation instruction for manipulating the first message; and

enabling manipulative access to the first message, wherein the second message is at least one of created, sent, received, forwarded and processed in instruction.